# <u>APPLICANT</u>

## MANUFACTURER

Symbol Technologies Inc One Symbol Plaza Holtsville, NY 11742 Same as Applicant

TEST SPECIFICATION:	FCC Rules and Regulations Part 15, Subpart C
TEST PROCEDURE:	ANSI C63.4:1992

#### TEST SAMPLE DESCRIPTION

BRANDNAME:	Symbol
MODEL:	P470
FCC ID:	H9PP470
TYPE:	2.4 GHz Pulsed Transmitter
FREQUENCY RANGE:	2400 to 2483.5 MHz
POWER REQUIREMENTS:	4 VDC derived from rechargeable battery pack

#### TESTS PERFORMED

- 15.249(a)	Radiated Emissions, Fundamental and Harmonics
- 15.249(c)	Radiated Emissions, Spurious Case

#### **REPORT OF MEASUREMENTS**

Applicant:	Symbol Technologies, Inc.
Device:	2.4 GHz Pulsed Transmitter
FCC ID:	H9PP470
Power Requirements:	4 VDC derived from rechargeable battery pack
Applicable Rule Section:	Part 15, Subpart C, Section 15.249

# Note: This Permissive Change testing was performed with a new, more cost effective antenna with the same gain characteristics as original FCC filing.

#### TEST RESULTS

- 15.203: The intentional radiator is designed to ensure that no antenna other than that furnished by the applicant can be used with the device.
- 15.249(a): The unit operates in the 2400-2483.5 MHz band. The field strength of the fundamental did not exceed 50mV/M AVERAGE. The field strength of the harmonics did not exceed  $500\mu$ V/M AVERAGE.
- 15.249(c): Emissions radiated outside the specified frequency band were attenuated in accordance with the general radiated emissions limits of 15.209.

#### GENERAL NOTES

- 1. All user accessible controls were adjusted to produce maximum emissions.
- 2. The device utilize a pulsed emission which has a worst case duty cycle of 30%. All readings above 1000 MHz were taken using a peak detector, were found to comply with the average limits.
- 3. The frequency range was scanned from 30 MHz to 24.82 GHz. All emissions not reported were more than 20dB below the specified limit.

## EXHIBIT 4

Radiated Emissions, Fundamental & Harmonics

Para. 15.249(a)

(Please see separate e-file attachments named FundHarmLow.doc, FundHarmMid.doc and FundHarmHigh.doc)

# EXHIBIT 4

Radiated Emissions, Spurious Case

Para. 15.249(c)

(Please see separate e-file attachments named Spurious RE.doc)

# EQUIPMENT LIST

## FCC 15.249(b) Radiated Emissions, 2.4GHz to24GHz

EN	Туре	Manufacturer	Description.	Model No.	Cal Date	Due Date
061	High Gain Horn Antenna	Microlab/FXR	1 GHz - 1.7 GHz	L638A	01/25/2000	01/25/2001
062	High Gain Horn Antenna	Microlab/FXR	1.7 GHz - 2.6 GHz	R638A	01/25/2000	01/25/2001
063	High Gain Horn Antenna	Microlab/FXR	2.6 GHz-3.95 GHz	S638A	01/26/2000	01/26/2001
067	Open Area Test Site	Retlif	3 Meter	RNY	10/15/1997	10/15/2000
129D	High Gain Horn Antenna	Microlab/FXR	12.4 GHz - 18 GHz	Y638A	01/26/2000	01/26/2001
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	03/20/2000	09/20/2000
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	03/08/2000	03/08/2001
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	03/20/2000	09/20/2000
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	06/16/1999	06/16/2001

## FCC 15.209(a) Radiated Emissions, 30MHz to 24GHz

EN	Туре	Manufacturer	Description.	Model No.	Cal Date	Due Date
061	High Gain Horn Antenna	Microlab/FXR	1 GHz - 1.7 GHz	L638A	01/25/2000	01/25/2001
062	High Gain Horn Antenna	Microlab/FXR	1.7 GHz - 2.6 GHz	R638A	01/25/2000	01/25/2001
063	High Gain Horn Antenna	Microlab/FXR	2.6 GHz-3.95 GHz	S638A	01/26/2000	01/26/2001
067	Open Area Test Site	Retlif	3 Meter	RNY	10/15/1997	10/15/2000
129D	High Gain Horn Antenna	Microlab/FXR	12.4 GHz - 18 GHz	Y638A	01/26/2000	01/26/2001
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	06/22/1999	06/22/2000
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	03/20/2000	09/20/2000
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	03/08/2000	03/08/2001
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	03/20/2000	09/20/2000
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	06/22/1999	06/22/2000
523	Biconilog	Electro-Mechanics	26 - 2000 MHz	3142B	10/22/1998	04/22/2000
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	06/16/1999	06/16/2001
617	Interference Analyzer	Electro-Metrics	10 kHz - 1 GHz	EMC-30	01/17/2000	01/17/2001